

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Carrier Current Systems, including Broadband over)	ET Docket No. 03-104
Power Line Systems)	
)	
Amendment of Part 15 regarding new requirements)	
and measurement guidelines for Access Broadband)	ET Docket No. 04-37
over Power Line Systems)	

Reply Comments of Thomas P. O'Brien, P.E.
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I respectfully submit my comments in reply to the comments¹ made by Ambient Corporation ("Ambient") in response to the *Notice of Proposed Rulemaking* in the above-referenced proceeding.²

1. Under "DISCUSSION", on page 3 of the "Ambient Comments", Ambient "requests that the Commission adopt rules supporting the deployment and operation of broadband power line ("BPL") systems at the earliest feasible time ... and (3) to avoid onerous crippling regulation while this fledgling industry is still in the earliest stages of its development".

It is clear that the "fledgling BPL industry" is in the earliest stages of development. However, there is no excuse for the "industry" to push the introduction of an immature and possibly flawed technology solely to benefit the "industry". Documented, scientific measurements indicate that the technologies currently under field test are immature, and that they cause harmful interference³. It is not clear why the Commission has not ordered these experiments shut down, in accordance with its own regulations.

2. On page 4, in conjunction with a quotation from a White House white paper on the Administration's technology agenda, Ambient states that it "believes that such coexistence of BPL with other critical uses of spectrum is a goal which can be achieved." I would suggest to Ambient that it would be better to design for coexistence in the first place, rather than insisting that the interference is not there, as has been suggested by every BPL proponent.

3. Also on page 4, quoting from an OSP Working Paper⁴, Ambient says: "Under the Commission's policies '... a certain amount of interference between devices is acceptable;

¹ Comments of Ambient Corporation, May 3, 2004 ("Ambient Comments")

² Carrier Current Systems, Including Broadband over Power Line Systems, Notice of Proposed Rulemaking [FCC 04-29], ET Docket No. 03-104, released February 23, 2004 ("Notice").

³ ARRL, NTIA, AMRAD comments in this proceeding.

⁴ OSP Working Paper Series, "Unlicensed and Unshackled: A Joint OSP-OET White Paper on Unlicensed Devices and their Regulatory Issues," May 2003, pp. 45-46.

however, beyond a certain limit interference can be considered harmful ..." Ambient cites this statement as FCC policy , when it is clearly a working paper, not policy. In fact, following the Abstract on page i, it is clearly stated that "[t]he analyses and conclusions in the Working Paper Series are those of the authors and do not necessarily reflect the view of other members of the Office of Strategic Planning and Policy Analysis, other Commission Staff, or any Commissioner. Given the preliminary character of some titles, it is advisable to check with authors before quoting or referencing these working papers in other publications." Ambient also conveniently neglects to quote the entire sentence, which I quote: "A certain amount of interference between devices is acceptable; however, beyond a certain limit interference can be considered harmful and, unless locally correctable, may require some form of external intervention." The Working Paper goes on to say that "Interference which may be intolerable in one service might be perfectly acceptable in another".⁵ BPL, if operating under Part 15 regulations, is not a "service" at all, and so has significantly lower standing than any licensed service.

From the required FCC statement, "This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device must not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation."

In summary, I suggest that Ambient Corporation, in the subject comments, is asking the Commission to relax rules with which Ambient's equipment (ostensibly) already complies, and to place the burden of interference reduction on licensed users of the spectrum. Further, Ambient attempts to magically transform a Working Paper into a statement of FCC policy.

In conclusion, I urge the Commission to reject Ambient's attempt to redefine "harmful interference" to suit its own purposes, and also to reject Ambient's request for relaxation of Part 15's technical standards, which have been demonstrated in the NTIA report⁶ to be insufficient, as written, to protect licensed spectrum users.

Respectfully submitted,

By _____
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May 13, 2004

⁵ Ibid, p. 46

⁶ NTIA Report 04-413, *Potential Interference from Broadband over Power Lines (BPL) Systems to Federal Government Radiocommunications*, Phase 1, April, 2004.